REMARKS

Applicant appreciates the time taken by the Examiner to review Applicant's present application. This application has been carefully reviewed in light of the Official Action mailed November 22, 2005. This Reply encompasses a bona fide attempt to overcome the rejections raised by the Examiner and presents amendments as well as reasons why Applicant believes that the claimed invention, as amended, is novel and unobvious over the applied prior art. Accordingly, Applicant respectfully requests reconsideration and favorable action in this case.

Claim Status

Claims 1-27 were presented for examination. Claims 1-27 were rejected. Claim 1 is amended herein to more particularly point out and specifically claim a computer readable medium storing a generic revenue management data model accessible by a revenue management software program being executed on a data processing system in a network. Preambles of claims 2-12 are correspondingly amended herein so that they are consistent with base claim 1 as amended. Claim 3 is amended herein to add the limitation of "network resource" that was inadvertently missing from the claim language. Claim 5 is amended herein to change the limitation of "airline industry" to "airline network" (Spec. page 10, paragraph [0037]). Claim 12 is amended herein to more particularly point out and specifically claim that the revenue management software program recited in claim 1 is operable to determine which of the plurality of resource bundles handle which of the plurality of demands in the network. Claims 13-21 are cancelled herein. Claim 22 is amended herein to more particularly point out and specifically claim a system for representing revenue management problems in a network based on a generic revenue management data model. Claims 23-24 and 27 are amended herein so that they contain sufficient antecedent basis for the limitations recited therein. Claims 28-34 are newly added. No new matter is introduced. Support for the amendments presented in claims 28-40 can be found in the Specification as

originally filed, particularly in paragraphs [0021]-[0024], [0027], [0033]-[0034] and [0062]. By this Amendment, claims 1-12 and 22-34 are pending.

Rejections under 35 U.S.C. § 112

Claims 21 and 27 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for lack of antecedent basis with respect to claim language. Specifically, claim 21 was rejected for reciting the limitation "the resource demand" and claim 27 was rejected for reciting the limitation "the results of [a] network optimization". Claim 21 is cancelled herein. Claim 27 is amended herein to remove "the" from before the word "results". Accordingly, withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 101

Claims 1-27 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Claims 13-21 are cancelled herein. Claim 1-12 and 22-27 are amended herein to overcome this rejection. Specifically, as amended, independent claim 1 recites a computer readable medium storing a generic revenue management data model accessible by a revenue management software program being executed on a data processing system in a network. Independent claim 1 is further amended herein to particularly point out concrete, tangible, and useful results (e.g., "network optimization") that can be generated based on the generic revenue management data model. Similarly, independent claim 22 is amended herein to recite a system for representing revenue management problems in a network comprising a computer readable medium embodying a set of software instructions, wherein the software instructions are executable to perform functions that generate concrete, tangible, and useful results (e.g., "store on a tangible storage medium a representation of a network demand in a first data structures based on a generic revenue management data model" and "perform at least one network optimization to derive an optimal network-wide solution for the network based on information stored"). A data structure stored in a computer memory that supports a specific data manipulation function is submitted to be statutorily patentable per *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994). The data structures recited in claims 1-12, 22-34, and newly added claims 28-34 specifically define relationships between data elements (e.g., links between resource bundles and network demands) and can be seen as physical entities that promote network optimization in revenue management operations. Accordingly, withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 102

Claims 1-27 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No.6,263,315 ("Talluri"). Claims 13-21 are cancelled herein. Traversal to the rejections will be collectively discussed herein with respect to independent claims 1 and 22.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Talluri is submitted to be distinguishable from the claimed invention at least because Talluri neither expressly nor inherently describes "a first data structure containing a representation of a network demand", "a second data structure containing a representation of a network resource", "a third data structure containing a representation of a resource bundle", or "a fourth data structure containing a representation of a resource bundle to demand link", as recited in independent claims 1, 22, and newly added claim 28. Talluri appears to disclose a revenue management scheme that uses multidimensional lookup tables [Talluri, col. 3, lines 58-66]. These multidimensional lookup tables seem to contain threshold values for each resource connected to a threshold value table server [Talluri, FIG. 1]. As illustrated in FIGS. 2A and 2B of Talluri, these multidimensional lookup tables seem to contain threshold values *only*. Other than the threshold value lookup tables, Talluri neither expressly nor inherently describes a generic revenue management data model comprising

"a first data structure containing a representation of a network demand;

a second data structure containing a representation of a network resource;

a third data structure containing a representation of a resource bundle; and

a fourth data structure containing a representation of a resource bundle to

demand link", as recited in independent claims 1, 22, and newly added claim 28.

Claims 1 and 22 are amended herein to also point out that "the resource bundle represents a group of resources combined to form a product or service." It is submitted that the inventory problem mentioned in col. 4, lines 41-43 of Talluri, cited in the Office Action, page 3, paragraph 6, is <u>not</u> whatsoever equivalent to the resource bundle taught and claimed in the present application.

In view of the foregoing, it is submitted that independent claims 1 and 22 recite subject matter not reached by Talluri under 35 U.S.C. § 102(e) and therefore should be allowed. Reliance is placed on *In re* Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) for the allowance of dependent claims 2-12 and 23-27 since they differ in scope from their base claims 1 and 22 which have been submitted as allowable. Having distinguished Talluri under 35 U.S.C. § 102(e), withdrawal of this rejection is respectfully requested.

Newly added claims 28-34

Newly added claims 28-34 are directed to a computer-implemented method for managing revenue in a network, comprising:

constructing a generic revenue management data model in a database or memory structure in the network, wherein the generic revenue management data model comprises

a first data structure for storing a representation of a set of network demands;

a second data structure for storing a representation of a set of network resources;

a third data structure for storing a representation of a set of resource bundles, wherein each resource bundle represents a group of resources combined to form a product or service; and

a fourth data structure for storing a representation of associations between the set of resource bundles represented in the third data structure and the set of network demands represented in the first data structure; and

mapping revenue management problem data to the database or the memory according to the generic revenue management data model.

The generic revenue management model constructed in a database or memory structure according to the method recited in claims 28-34 can facilitate seamless integration of disparate optimization programs in a network. For example, the data structures of the generic revenue management model allow for the decomposition of the revenue management problem data and can facilitate the subsequent independent and/or sequential application of new and/or different network optimization and/or revenue management programs to derive optimization solutions at both local and network levels, thus achieving technical advantages not reached by applicable prior art of record. Additional discussion on the advantages provided by embodiments of the invention can be found in the Specification (e.g., page 5, paragraph [0020], page 6,

paragraph [0022] , and page 10, paragraph [0036]). Accordingly, newly added claims 28-34 are submitted to be patentable.

Conclusion

Applicant has now made an earnest attempt to place the present application in condition for allowance. Other than as explicitly set forth above, this reply does not include any acquiescence to statements, assertions, assumptions, conclusions, or any combination thereof in the Office Action. For the foregoing reasons and for other reasons clearly apparent, favorable consideration and a Notice of Allowance of all pending claims 28-34 is respectfully solicited. The Examiner is invited to telephone the undersigned at the number listed below for discussing an Examiner's Amendment or any suggested actions for accelerating prosecution and moving the present application to allowance. The Director of the U.S. Patent and Trademark Office is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 50-3183 of Sprinkle IP Law Group.

Respectfully submitted,

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